

## **IMMA position on the List of remaining open issues on noise of motorcycles (R41)**

Issues identified at the GRB in February 2009 in Geneva, extended with additional items raised by Germany and IMMA since (all marked by numbers in circles in the text):

With the conclusions of a Germany/IMMA discussion on 09/04/09.

### **1. Editorial (referencing mistake)**

Make the following editorial correction in note to Section 2.6.

- b) where the fuel and oil are separately metered, the word "fuel" is interpreted as including only the petrol. [The "oil", in this case, is already included in the **third bullet of this section** ~~measurement of vehicle dry mass (see 4.1.1).]~~”

**IMMA position: Agreed**

OK

### **2. Clarification/deletion**

**What is the meaning of “tyre production type”? Is this needed?**

**No need for tyre production type but need to somehow include appropriate information on tyre (for instance tyre type approval identification (without mandating ECE tyre approval))**

**Proposal: ECE type approval number if available; if not than tyre manufacturer; tyre size; commercial description; ... ; other type approval number (if available) (extract from ECE R51 Annex IX)**

### **3. Manufacturer’s plate**

Section 6.1.1.: possible addition of reference information on manufacturer’s plate related to drive-by noise enforcement testing

**IMMA position:**

**Difficulty of putting plate on vehicle and extra cost, only Germany/NL will use the information. The required information is / will be / can be made available electronically. This issue should be resolved at EU level.**



19-NTF-09 Annex  
3.pdf

**Germany clarifies that their request for extended information does not necessarily require an extension of the already existing plate (a separate plate is possible); IMMA responds that this reduces the problems related to lack of space but leaves the problem of increased cost; agreement that EU solution is an option**

### **4. Most appropriate wording for ASEP**

Section 6.3.: most appropriate wording for ASEP (how to best combine ASEP requirements with issuance of manufacturer declaration for type approval purposes)

**IMMA position:**

**IMMA could accept the green text but prefer the blue**

**OK**

### **5. Ambient temperatures**

Annex 3 section 1.2.2.: practical problem for certain regions with ambient temperatures above 40°C for several months of the year

**IMMA position:**

**IMMA agrees with India, use the SIAM information below in support. Combined with alignment of R51: 0°-45°**

**Note: In principle the temp range in R51 should also go up to 45°C**

SIAM : Typical summer temperatures are given below:

	VRDE, Ahemednagar	Pithampur (planned)	Manesar (planned)	Chennai (planned)
Approximate Summer period	20 <sup>th</sup> March – 10 <sup>th</sup> June	1 <sup>st</sup> April – end June	1 <sup>st</sup> April – end July	1 <sup>st</sup> March – end May
Maximum temp	45	48	46	45
Period when temperature will be above 40°C	10AM – 6PM	9AM – 7:30PM	9AM – 7PM	11AM – 4PM

In India, the test facilities are not nearby to manufacturers' R&D centers and SIAM expects considerable loss of time and expenses if testing personnel to wait for ambient temperature to come down in required range.

This item will be referred to GRB as an issue that relates to all noise Regulations.

### **6. Editorial correction**

1.3.2.2. Test mass of the vehicle

Measurements shall be made on vehicles at the following test mass  $m_t$ , in kg, specified as:

$m_t = m_{\text{kerb}} + 75 \text{ kg} \pm 5 \text{ kg}$  (75 kg  $\pm$  5 kg equates to mass of the driver **and instrumentation**).

**IMMA position: Agreed**

### **7. Commercial availability of tested tyre**

Annex 3 section 1.3.2.3.: need to specify commercial availability of tested tyre

**IMMA position:**

Commercially availability of tyres is not relevant part of a motorcycle noise regulation; the regulation only refers to tyre dimensions and type

OK in principle; Germany will discuss simplification (tyre selected by the vehicle manufacturer; possibly together with clarification for COP)

### **8. Gear selection**

Annex 3 section 1.3.3.3.1.3.1.: gear selection procedure, two gears give accelerations within 10% of the reference acceleration

#### **IMMA position:**

**IMMA thinks that within the 10% tolerance band there should only be one gear used, and that should be the nearest to the prescribed acceleration line.**

In principle OK but Germany regards either  $i$  or  $i+1$  as more clearly defined; this would require a separate note in the test report to indicate that the gear chosen is the nearest one

### **9. Exclusion of gears**

Annex 3 section 1.3.3.3.1.3.1.: exclusion of gears for which the rated engine speed is exceeded before the vehicle passes BB'

#### **IMMA position:**

**For clarity, blue text but without “(i)” and “(i+1)”**

**“If the rated engine speed is exceeded in a gear  $(i)$  before the vehicle passes BB', the next higher gear  $(i+1)$  shall be used.”**

**Both OK in principle; just need to think about best way to say that S should not be exceeded**

### **10. Vehicles with $a_{wot}$ less than $a_{urban}$**

Annex 3 sections 1.3.3.3.1.3.2. and 1.4.4.2: how to deal with vehicles with  $a_{wot}$  less than  $a_{urban}$  (determination of  $k_p$ )

#### **IMMA position:**

**Germany has IMMA data already; more detailed vehicle spec now available (to be given to Germany). IMMA cannot accept that vehicles would be rejected in a motorcycle noise regulation on the basis of insufficient acceleration. If Germany does not accept IMMA's proposal what is their alternative?**



22-NTF-09 Rev 1  
Annex 1.ppt

$k_p=0$  is OK in principle above 50 kW/t (because covered by ASEP); Germany would like to check the possible need for ASEP for  $PMR < 50$  in case of  $k_p=0$

### **11. Pre-acceleration in case of CVT**

Annex 3 section 1.4.2 : possibility for pre-acceleration in case of CVT without locked gear ratio

#### **IMMA position:**

**IMMA does not see advantage/justification for German proposal; stable acceleration insufficiently defined; undue burden because consequence of proposed text is that first possibility for achieving “stable acceleration” between AA-BB has to be checked possibly with pre-acceleration before being able to test between PP-BB without pre-acceleration.**

**IMMA requests to maintain PP-BB without pre-acceleration for these vehicles, which we knows works.**

**Agreement about not obliging checking of possibility of getting stable acceleration between AA and BB with any degree of pre-acceleration; the issue is also linked to the “stability of acceleration”**

### **12. Actual vehicle length or fixed 2m**

Annex 3 section 1.4.2.1.:  $l_{ref}$  as actual vehicle length or fixed 2m for acceleration calculation (possible choice for manufacturer for reasons of ease of testing)

#### **IMMA position:**

**See FAMI test results: there is no different in the final result, even if there are very small differences in some of the individual parameters. Use FAMI data to support maintaining the choice.**



22-NTF-09 Rev 1  
Annex 3.ppt

### **13. Multi-mode motor cycles**

Annex 7 section 2.1.: multi-mode motor cycles

#### **IMMA position:**

**Support in principle. How can this be linked / how is this related to section 6.5.2?**

**Germany clarifies that their proposal relates to rider-selectable operating modes/programmes; agreement that text for R51 ASEP will be considered which relates to ASEP (valid acceleration is relevant for cars because of accel limit); Germany is favourable to use worst case testing approach**

### **14. Simplification of formula**

Annex 7 sections 2.5. and 3.2.2.: simplification of formula

**IMMA position: Agreed**

### **15. ASEP slopes and tolerance**

Annex 7 section 2.6.: ASEP slopes and tolerance (agreed principle is that ASEP should only affect vehicles of concern and be as simple as possible with minimal testing burden; Germany will re-check the ASEP database)

#### **IMMA position:**

**The agreed principle is that the slopes should not touch vehicles that are not of concern. Germany has to decide whether or not to agree with IMMA's lines or to propose an alternative with a rationale (what makes a vehicle a vehicle of concern?).**

Germany will have concluded its analysis of the ASEP database

### **16. Reference engine speed**

Annex 7 section 2.6.: most appropriate reference engine speed for ASEP evaluation (compromise between accuracy and ease of testing)

#### **IMMA position:**

**IMMA maintains its position that the front of the vehicle at PP is adequate for testing. Engine rpm at AA', BB' and PP' can be monitored accurately and easily. Changing the formula based on "n" at Lmax will add to complication in instrumentation; changing the formula based on nBB will require re-evaluation of the ASEP limitation**

Germany informs about latest discussion in R51 (choice between nBB or nLmax); German counterproposal would be engine speed when rear end of vehicle passes PP (see distribution chart from HS)



check\_position\_of\_L  
max\_mot\_1.xls

### **17. Number of test points**

Annex 7 section 3.1.: number of test points that can be defined within the ASEP control range at the discretion of the type approval authority / technical service

#### **IMMA position:**

**IMMA maintains that the three reference points plus one is all that is necessary. Anything more is unnecessary and just adds to test duration and therefore costs.**

Germany refers to latest R51 agreement: 2 tests in total (instead of 1 per gear)